

1655
20
Concrete Bridges



LEHIGH PORTLAND CEMENT CO.

MAIN OFFICE:
CLEVELAND, OHIO

INDIANAPOLIS, IND.

ANNUAL CAPACITY 8,000,000 BARRELS

ESPECIALLY ADAPTED
FOR REINFORCED CONCRETE WORK
GOVERNMENT STANDARD ABSOLUTELY GUARANTEED

LIBRARY of
THE
FRANKLIN
INSTITUTE

CONCRETE BRIDGES

Herewith we show Concrete Bridges on which Lehigh has been used varying in spans from 38 feet to 105 feet. Floods carry away hundreds of truss bridges annually, but we have as yet to learn of the first concrete bridge to be affected by floods.

Build Concrete Bridges and use Lehigh and you will have a bridge forever.

ADVANTAGES OF REINFORCED CONCRETE BRIDGES.

Concrete bridges are permanent improvements.

Concrete bridges require neither painting nor repairs.

Concrete bridges have no wooden floors that are periodically out of repair.

As time passes,

Traffic on our highways grows heavier;

Steel and wooden bridges grow weaker;

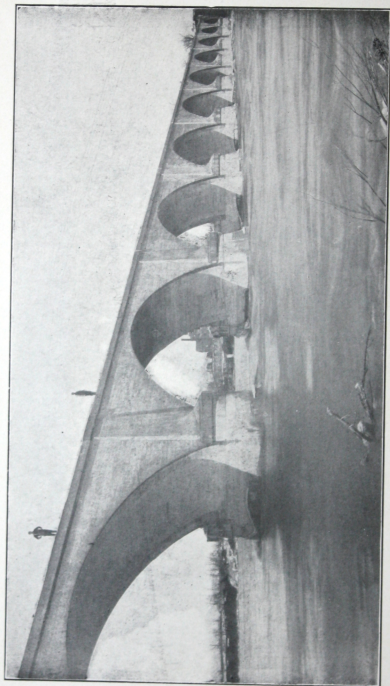
Concrete bridges grow stronger.

To build a concrete bridge then, is just plain common sense.

Concrete bridges are flood-proof and frost-proof, rust-proof and fire-proof.

A concrete bridge once built, is built for all time.

A concrete bridge is the only bridge that grows stronger as it grows older.

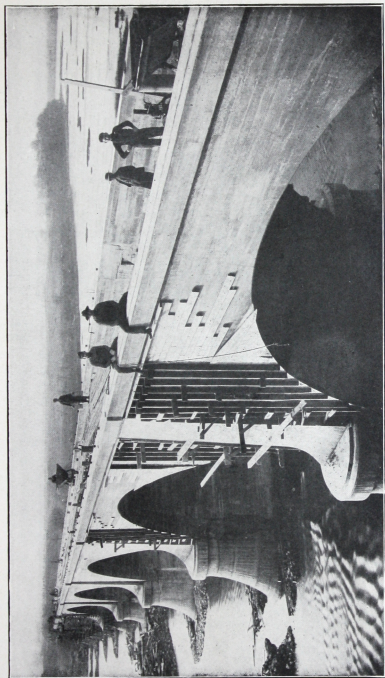


MAUMEE BRIDGE, WATERVILLE, OHIO.

Twelve spans of 75 to 90 ft. each. Erected for the Ohio Electric Railway Company, Cincinnati, O., by National Concrete Company.

Gaylord Thompson, Chief Engineer.

Designed by National Bridge Co.



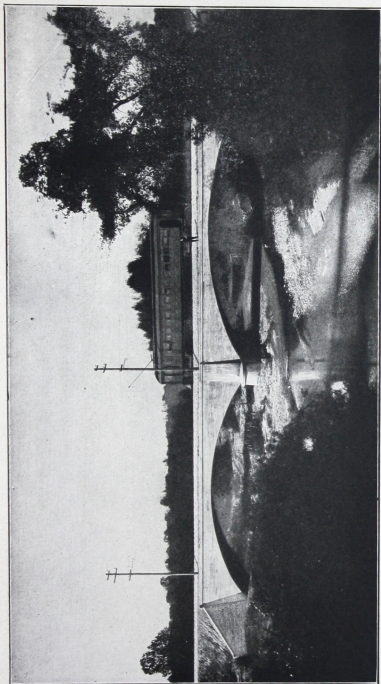
MAUMEE BRIDGE, WATERVILLE, OHIO.

This view shows progress of construction. This view was taken in November, 1907, showing centers removed from first five spans; centers erected for eleventh span. Completed arches are of 75, 80, 84, 87 and 89 ft. span.



MAUMEE BRIDGE, WATERVILLE, OHIO.

Up-stream view showing form erection, with eighth span in the foreground. Centers complete to this span, and concreting on arch rings in progress. Forms for spandrels erected ready for concrete with exception of posts over piers.



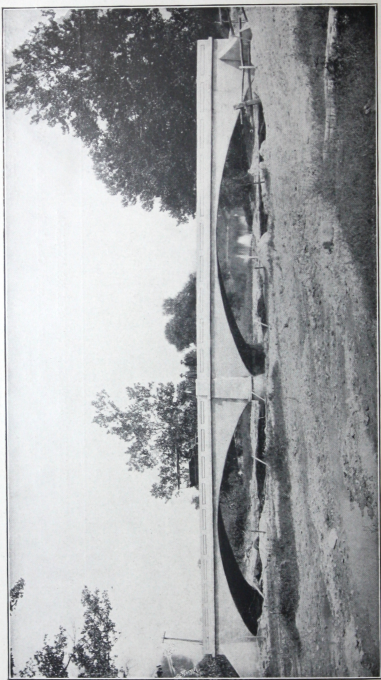
5

CARTERSBURG BRIDGE, CARTERSBURG, INDIANA.

Twin spans of 90 ft. Erected for the Indianapolis & Western Railway Co., Indianapolis, by National Concrete Company.

Robert P. Woods, Chief Engineer.

Designed by National Bridge Co.

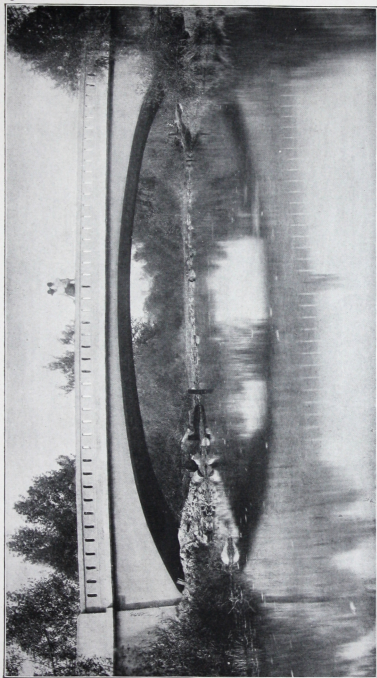


BANKER'S FORD BRIDGE, SHELBYVILLE, INDIANA.

Twin spans of 57 ft. 3 inches each. Erected for the Board of Commissioners of Shelby County, by National Concrete Company.

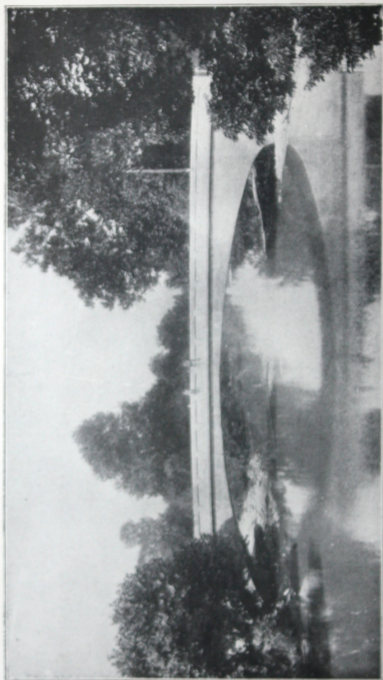
J. M. Morbely, Chairman of Board.

Designed by National Bridge Co.,



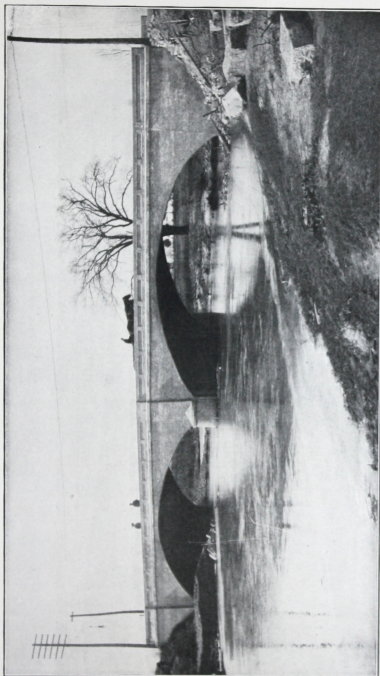
KEMP BRIDGE, WABASH, INDIANA

Span of waterway 60 ft. Erected for the Board of Commissioners of Wabash County, by National Concrete Company.
Designed by National Bridge Co.
W. H. Fowler, County Engineer,



YORKTOWN BRIDGE, YORKTOWN, INDIANA.

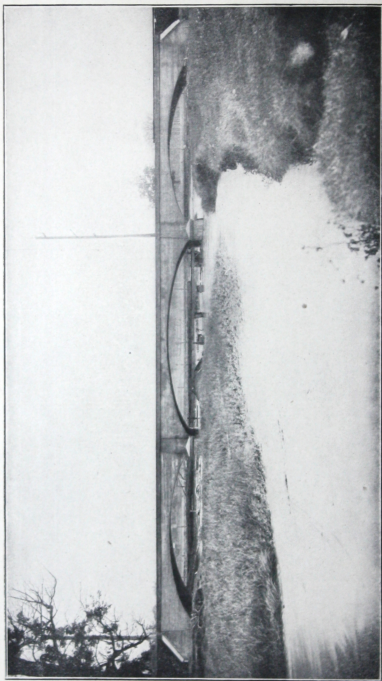
Span of waterway 95 ft. Erected for the Board of Commissioners of Delaware County, by National Bridge Company.
I. S. Ellis, Chairman of Board. Designed by National Bridge Co.



YOUNG'S CREEK BRIDGE, FRANKLIN, INDIANA.

Twin spans of 57 ft. 6 inches each.
J. D. Ragsdale, Chairman of Board.

Erected for the Board of Commissioners of Johnson County, by National Concrete Company.
Designed by National Bridge Co.



BRIDGE 956, C. L. & S. RY. LONDON, OHIO.

Three spans of 40, 45 and 40 ft. Erected for the Ohio Electric Railway Co., Circinnati, O., by National Concrete Company.

G. B. Darnell, Res. Engineer.

Designed by National Bridge Co.

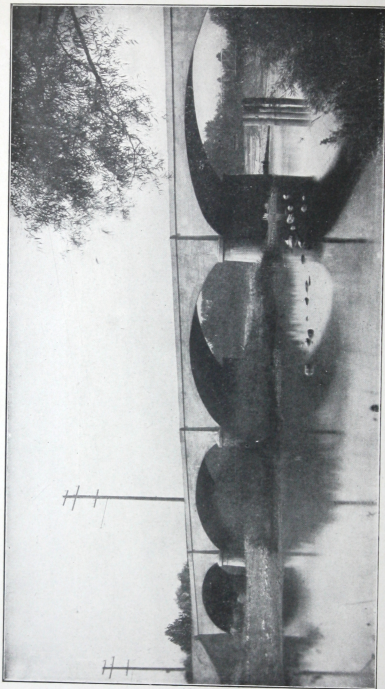


RED BRIDGE, HUNTINGTON, INDIANA.

Twin spans of 105 ft. each. Erected for the Board of Commissioners of Huntington County, by National Concrete Company.

E. A. Chenoweth, Chairman.

Designed by National Bridge Co.

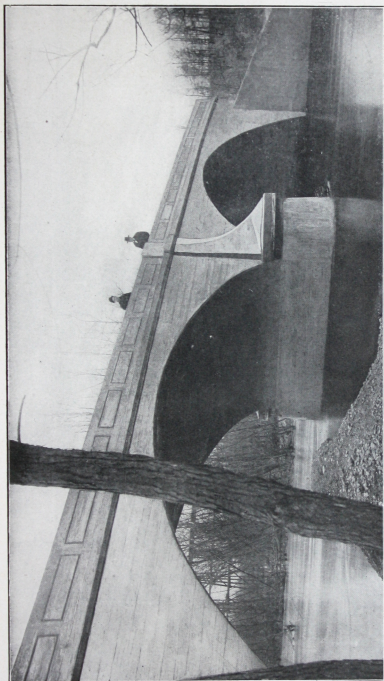


PLAINFIELD BRIDGE, PLAINFIELD, INDIANA.

Five spans 35 to 42 ft. each. Erected for the Terre Haute, Indianapolis & Eastern Ry., Indianapolis, by National Concrete Company.

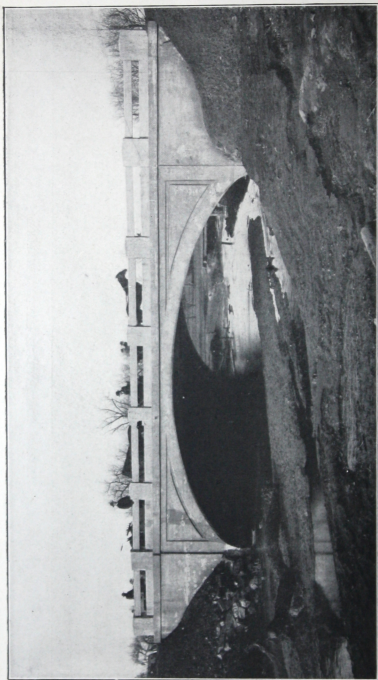
Robert P. Woods, Chief Engineer.

Designed by National Bridge Co.



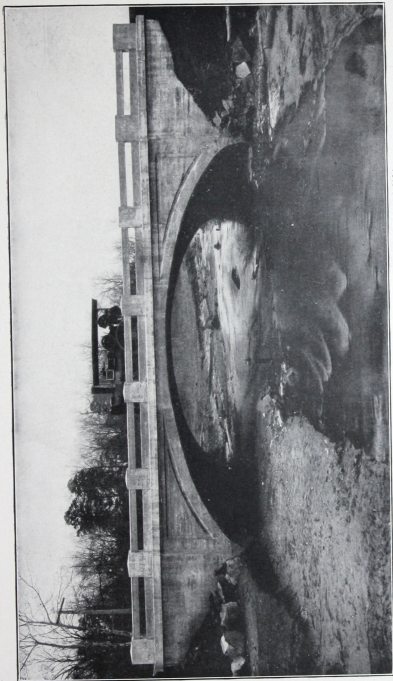
PATRICK FORD BRIDGE, CAYUGA, INDIANA.

Twin spans of 55 ft. each. Erected for the Board of Commissioners of Vermillion County, by National Concrete Company.
Fred Rush, County Engineer. Designed by National Bridge Co.



ELIZABETH AVENUE BRIDGE, CHARLOTTE, NORTH CAROLINA.

Span of waterway 50 ft. Erected for the Board of Trustees of Charlotte Township, by National Bridge Company.
D. P. Hutchinson, Chairman of Board. Designed by National Bridge Co.



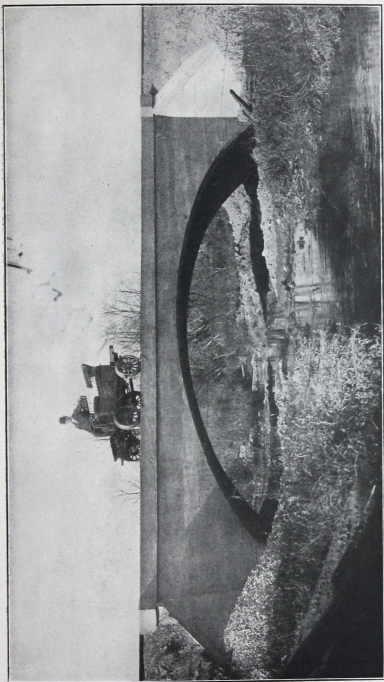
WEST TRADE STREET BRIDGE, CHARLOTTE, NORTH CAROLINA.

Span of waterway 50 ft. Erected for the Board of Trustees, Charlotte Township, by National Bridge Company.
Designed by National Bridge Co.
D. P. Hutchinson, Chairman of Board.



BRIDGE 816, C. & L. M. RY., LIMA, OHIO.

Twin spans of 60 ft. each. Erected for the Ohio Electric Railway Co., Cincinnati, by National Concrete Company.
Morris Hacker, Prin. Asst. Engineer. {Designed by National Bridge Co.

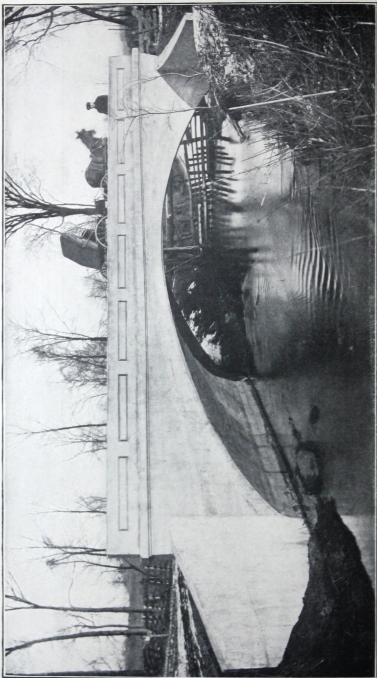


BRIDGE 401, C. & L. M. RY., GOMER, OHIO.

Span of waterway 35 ft. Skew 30 degrees. Erected for the Indiana, Columbus & Eastern Traction Co., by National Concrete Company.

Morris Hacker, Principal Asst. Engineer.

Designed by National Bridge Co.

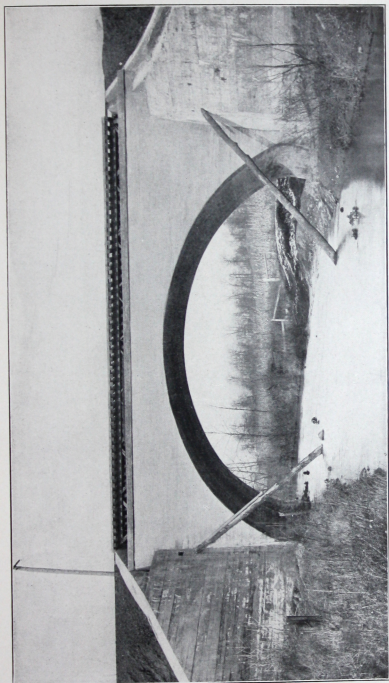


"DOUBLE-DRUM" ARCH, MUNCIE, INDIANA.

Span of waterway 38 ft. Skew 45 degrees. Erected for the Board of Commissioners of Delaware County, by National Concrete Company.

J. S. Ellis, Chairman of Board.

Designed by National Bridge Co.

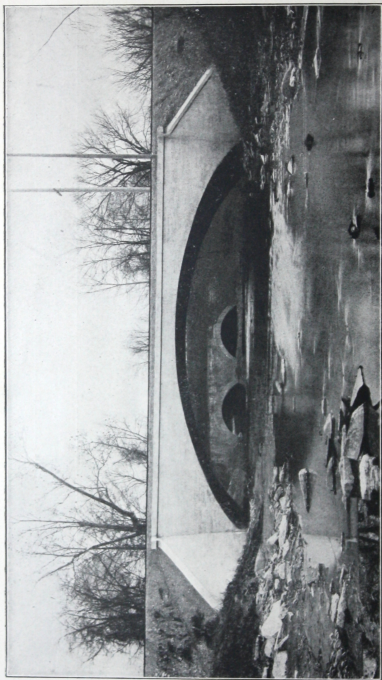


BRIDGE 841 T. H., I. & E. RY., DANVILLE, INDIANA.

Span of waterway 60 ft. Erected for the Terre Haute, Indianapolis & Eastern Ry., Indianapolis, by National Concrete Company.

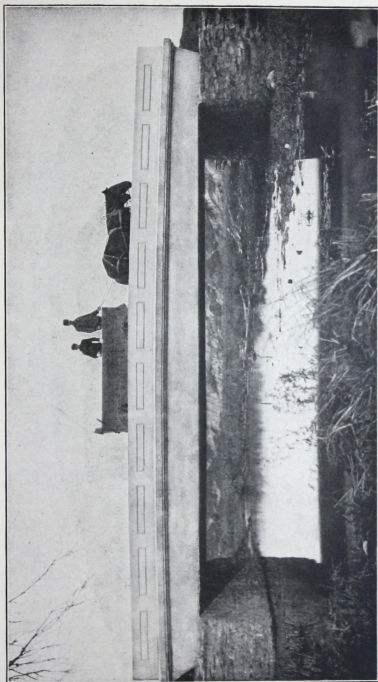
R. P. Woods, Chief Engineer

Designed by National Bridge Co.



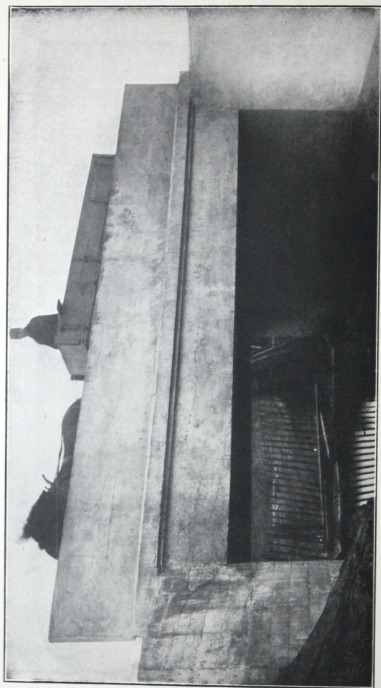
HOLES CREEK BRIDGE, WEST CARROLLTON, OHIO.

Span of waterway 65 ft. Erected for the Cincinnati Northern Traction Co., Cincinnati, O., by National Bridge Company.
C. A. Alderman, Chief Engineer.
Designed by National Bridge Co.



"ARCH-GIRDER," ALBANY, INDIANA.

Span of waterway 40 ft. Erected for the Board of Commissioners of Delaware County, by National Concrete Company.
J. S. Ellis, Chairman of Board. Designed by National Bridge Co.



LUTEN TRUSS GIRDER, HARTFORD CITY, INDIANA.

Span of waterway 22 ft. Erected for the Board of Commissioners of Blackford County, by G. T. & R. B. Fulton,
Hartford City, Ind. Designed by National Bridge Co.

The Lehigh Portland Cement

It is specified and used by the most exacting Engineers and Contractors and always meets all requirements whether for reinforced concrete or finished work.

Lehigh has so far this year been awarded all the important government contracts in the South and Middle West such as Lock 13, Ohio River; Locks 14 and 15, Warrior River; Lock 21, Cumberland River; Lock and Dam, Colbert Shoals, Ala., and Breakwater, Milwaukee, Wis. We shall be glad to figure with you when in the market.

Lehigh Portland Cement Company

Main Office
CLEVELAND, OHIO

INDIANAPOLIS
INDIANA

